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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,423

09/04/2003

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25944 7590 05/14/2007
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EXAMINER

MARIAM, DANIEL G

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

05/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/654,423	Applicant(s) SATO ET AL.	
	Examiner DANIEL G. MARIAM	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-8, 11, 14 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 10, 12, 13, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicants' election with traverse of Group I (claims 1-4, 9-10, 12-13, and 15-16) in the reply filed on April 10, 2007 is acknowledged.
2. Applicants' election with traverse of invention II is acknowledged. The traversal appears to be on the grounds that a search and examination of the entire application would not place a serious burden on the Examiner. This reason is not found persuasive. The Examiner considers it an undue burden to examine two groups of the invention within a single application, especially when the time allotted for examining the application remains unchanged. Time is at a premium and the best insurance of a quality examination is a limit of one invention per application. Every effort will be made to see that the same examiner works on any divisional application if filed. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
3. Claims 1-3, 9-10, 12-13, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Pan, et al (7,079,670).

With regard to claim 1, Pan, et al discloses an input device which generates control information by moving an object to be detected (See for example, item 10, in Fig.1, where a user's fingerprint image is detected when a user inputs his/her fingerprint image into the input ckt. 10), comprising: an image capture section which captures an image of the object to be detected (See for example, item 10, in Fig. 1 and its associated text); a feature point extraction

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section, i.e., CPU, which extracts a feature point of the image captured by the image capture section (See for example, item 32, in Fig. 1 and its associated text); a difference calculation section, i.e., security token ckt, which calculates a difference between a reference position, i.e., registered feature position of the fingerprint image, and a position of the feature point, i.e., a target feature position of the fingerprint image, and a control information output section, i.e., security token circuit, which outputs the control information, i.e., authentication result, corresponding to the calculated difference (See for example, item 40, in Fig. 1; and col. 5, lines 26-31. Applicants' attention is also invited col. 5, line 64 – col. 6, line 7).

With regard to claim 2, the input device as defined in claim 1, wherein the reference position is a position of a feature point extracted from an image of the object to be detected in a frame at least one frame before the current frame, i.e., fingerprint image data that is detected and stored as registered data (See for example, col. 5, lines 4-13).

With regard to claim 3, an image capture section which captures an image of the object to be detected (See for example, item 10, in Fig. 1 and its associated text); an area calculation section, i.e., MICOM, which calculates an area, i.e., region, of the image captured by the image capture section, a difference calculation section which calculates a difference between an area of the image of the object to be detected in a frame at least one frame before the current frame and the area calculated by the area calculation section, and a control information output section which outputs the control information corresponding to the calculated difference (See for example, col. col. 6, line 45 – col. 7, line 62).

With regard to claims 9 and 10, the input device as defined in claim 1 and 3 respectively, wherein the object to be detected is a fingerprint (See item 10, in Fig. 1).

With regard to claims 12 and 13, an information device comprising: the input device as defined in claims 1 and 3 respectively; and a processing section which performs control processing based on the control information from the input device (See item 30 or 40, in Fig. 1).

Claim 15 is rejected the same as claim 1 except claim 15 is a method claim. Thus, argument similar to that presented above for claim 1 is applicable to claim 15.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan, et al (7,079,670) in view of Wada (6,175,640).

With regard to claim 4, Pan, et al (hereinafter "Pan") discloses all of the claimed subject matter as already addressed above in paragraph 3, and incorporated herein by reference. Pan does not elaborate on the structure of the fingerprint image input circuit 10, and thus Pan does not expressly call for wherein: the image capture section includes a detection surface and captures an image of an object to be detected which is in contact with the detection surface, and the control information output section outputs the control information corresponding to the moving amount of the object to be detected in an axis direction perpendicular to the detection surface. However, Wada captures a fingerprint image when the finger comes in contact with the surface of the prism, and outputs the control information corresponding to the moving amount of the object to be detected in an axis direction perpendicular to the detection surface (See Figure

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3). Pan and Wada are combinable because they are from the same field of endeavor, i.e., comparing fingerprint image (See for example, Fig. 1). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Pan with Wada. The motivation for doing so is for no other reason than to obtain control/operation information on the basis of the movement of the finger when placed in the fingerprint image detector in a designated direction. Therefore, it would have been obvious to combine Wada with Pan to obtain the invention as specified in claim 4.

Claim 16 is rejected the same as claim 4 except claim 16 is a method claim. Thus, argument similar to that presented above for claim 4 is applicable to claim 16.

Conclusion


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Number: 6,509,847 (See col. 5, lines 21-42: claims 4 and 16); and US Patent Application Publication: 2003/0076985 (See Figs. 1-3: claims 1-3, 9-10, 12-13, and 15), and 6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DANIEL G MARIAM
Primary Examiner
Art Unit 2624

May 7, 2007